

**Amendments to the Specification:**

The following paragraphs from the specification are hereby amended:

Please replace paragraph [0014] with the following paragraph:

[0014] An organic semiconductor for use with the above embodiments can be a polymer, a conjugated polymer or an oligomer. In some instances, the semiconductor includes a polyacetylene, a poly(phenylene), a poly(phenylene vinylene), a ~~polyfluorene~~ ~~polyfluorine~~, a polythiophene or a polycyclopentadithiophene. Additionally, the semiconductor can be a co-polymer with a backbone that includes one or more acetylene units, one or more phenylene units, one or more ~~fluorene~~ ~~fluorine~~ units, one or more thiophene units or one or more cyclopentadithiophene units. Each of the polymers listed in this paragraph can be substituted or unsubstituted. In some instances, the organic semiconductor is selected from the listed compounds and is soluble in an organic solvent and/or an aqueous solvent. Examples of suitable soluble derivatives include, but are not limited to, MEH-PPV (poly(2-methoxy, 5 ethyl, (2' hexyloxy) para-phenylene vinylene) and poly(3-hexyl-thiophene).

Please replace paragraph [0043] with the following paragraph:

[0043] The semiconductors 54 disclosed in FIG. 3B and FIG. 4B can be semiconductors that are typically employed in integrated circuit and display fabrication. Alternately, the semiconductor 54 materials shown in FIG. 3B and FIG. 4B can be organic. Suitable organic materials for an organic semiconductor include both non-polymers, polymers, conjugated polymers and oligomers. Examples of suitable organic materials include, but are not limited to, polyacetylenes, poly(phenylene)s, poly(phenylene vinylene)s, ~~polyfluorenes~~ ~~polyfluorines~~, polythiophenes or polycyclopentadithiophenes. Additionally, the semiconductor can be a co-polymer with a backbone that includes one or more acetylene units, one or more phenylene units, one or more ~~fluorene~~ ~~fluorine~~ units, one or more thiophene units or one or more cyclopentadithiophene units. The polymers listed in this paragraph can be substituted or unsubstituted. In some instances, the organic semiconductor is selected from the listed compounds and is soluble in an organic solvent and/or an aqueous solvent. Examples of suitable soluble materials include, but are not limited to, MEH-PPV (poly(2-methoxy, 5 ethyl, (2' hexyloxy) para-phenylene vinylene) and poly(3-hexyl-thiophene). An organic semiconductor can include a plurality of organic materials or a single organic material. Alternately, the organic semiconductor can include one or more organic materials and one or more non-organic components. In some instances, the conductivity of an organic semiconductor is controlled through doping. Examples of suitable dopants include, but

are not limited to, iron chloride, phosphorous-hexafluoride and combinations thereof. For water-soluble systems, examples of suitable dopants include, but are not limited to, polystyrene, sulfonic acid, similar compounds and combinations thereof.